

REMARKS

Rejection of Claims 1-24 under 35 USC §103(a)

The Examiner rejected claims 25-46 as unpatentable over Igarashi, et al. (US 2001/0012777) in view of Troxel, et al. (US 2002/0075807) and in further view of Kakemizu, et al. (US 2002/0018456).

Applicants request reconsideration of the rejections of claims 25, 27-30, 32-34, 42, and 44-46, including independent claims 25 and 42.

Applicant disagrees with the allegations made in the Office Action, and in particular that the subject matter of the claim is rendered obvious by the cited references. However, to expedite prosecution, the claims have been amended.

Independent claim 25 has been amended to recite a method of routing data traffic between a second device and a first device in a mesh network when the first device moves into a coverage area of a first roaming node. The mesh network has a plurality of nodes for providing wireless access to a plurality of wireless end user devices including the first and second devices. The first device is associated with a first home node. The second device is provided wireless access by a second roaming node and is associated with a second home node different from the second roaming node. Each of the second roaming node and the second home node is different from the first home node. The first roaming node is different from the first home node and the second roaming node. The plurality of nodes includes a gateway node for tracking the wireless end user devices and for relaying data traffic between the mesh network and another network external to the mesh network. A notification from the first roaming node that the first device has moved into the coverage area of the first roaming node is received only at the gateway node. A notification from the gateway node that the first device has moved into the coverage area of the first roaming node is received only at the first home node. Data traffic originating from the second device and destined for the first device is received at the first home node from the second roaming node and is forwarded from the first home node to the first roaming node. It is determined at the first roaming node that the data traffic was received from the second roaming node, originated from the second device, and is destined for the first device. The data traffic is forwarded to the first device, and the

first roaming node is reprogrammed to route any further data traffic destined for the second device to the second roaming node. Further data traffic destined for the second device at the second roaming node from the first roaming node is thereby routed to the second device without involving the second home node or the gateway node.

Claims 26 and 31 have been cancelled without prejudice, and claims 27-30 and 32-34 have been amended to reflect changes in terminology used in claim 25.

Claims 35-41 have been cancelled without prejudice.

Independent claim 42 has been amended to recite a mesh network having a plurality of nodes for providing wireless access to a plurality of wireless end user devices including a first device and a second device. The plurality of nodes includes a first roaming node for providing wireless access to the first device, including receiving data traffic from the first device, when the first device moves into a coverage area of the first roaming node. A gateway node is included for tracking the wireless end user devices and for relaying data traffic between the mesh network and another network external to the mesh network. The gateway node is further for receiving a notification from the first roaming node that the first device has moved into the coverage area of the first roaming node. The first roaming node is further for sending the notification only to the gateway node. A first home node associated with the first device is included, and is different from the first roaming node. The first home node is for receiving from the gateway node a notification that the first device has moved into the coverage area of the first roaming node. The gateway node is further for sending the notification only to the first home node. A second home node associated with the second device is included. A second roaming node different from the first roaming node and the second home node is included, and is for receiving from the second device data traffic destined for the first device, and for forwarding the data traffic to the first home node. The first home node is further for forwarding the data traffic to the first roaming node. The first roaming node is further for determining that the data traffic was received from the second roaming node, determining that the data traffic originated from the second device and is destined for the first device, reprogramming the first roaming node to route further data traffic destined for the second device to the second roaming node, and forwarding the data traffic to the first device. Any further data traffic destined for the second device at the second

roaming node from the first roaming node is routed to the second device without involving the second home node or the gateway node.

Claim 43 has been cancelled without prejudice, and claims 44-46 have been amended to reflect changes in terminology used in claim 45. Claim 46 has further been amended to correct the initial recitation of a “destination node” rather than a “mesh network” as was intended.

The above noted amendments are supported by the disclosure as filed at least at paragraphs [00022]-[00036] and Figures 1, 4, and 5.

None of the references cited in the Office Action, taken alone or in combination, disclose or render obvious all of the features of the claims as amended. All of the cited references fail to teach at least one of the features noted above.

Igarashi, et al. is noted, by the Examiner, as not disclosing reprogramming the destination node to route any further data traffic destined for the source device to the source roaming node. The Examiner relies on Troxel, et al. for teaching this limitation.

However, Troxel et al. clearly teach away from the subject matter of the claims. Toxel, et al. teach away from the involvement of the first home node in reprogramming the first roaming node to route any further data traffic destined for the second device to the second roaming node without involving the second home node or the gateway node (paragraphs 0036-0040). While Troxel et al. teaches the establishment of a remote binding between a mobile node and its home agent, the home agent thereafter tunnels messages destined for the mobile node to the mobile node’s foreign agent (paragraph 0036). Toxel, et al. question the degree of message delivery possible to the mobile node if communication with the home agent subsequently fails (paragraph 0037) and proceeds to teach the establishment of a remote binding with a correspondent node only without the involvement of the home node. This disclosure does not address the need for routing traffic to the mobile node in the event it terminates its local binding with the foreign agent and establishes a new local binding with a new foreign agent. In this regard, Troxel et al. subsequently teach the publication by each foreign agent of information about currently attached mobile nodes (paragraph 0042), but teaches only such publication by flooding when a mobile node changes

foreign agents (paragraphs 0047 and 0051). In particular, Troxel et al. do not teach receiving only at a gateway node a notification from a first roaming node that a first device has moved into the coverage area of the first roaming node, and receiving only at a first home node associated with the first device a notification from the gateway node that the first device has moved into the coverage area of the first roaming node.

Kakemizu, et al. is cited for disclosing modules, not receiving only at different nodes.

Both claims 25 and 42 included these limitations, so are allowable. Dependent claims 27-30, 32-34, and 44-46 depend from claims 25 and 42, so are allowable for the same reasons.

CONCLUSION:

Applicants respectfully submit that all of the pending claims are in condition for allowance and seeks early allowance thereof. If for any reason, the Examiner is unable to allow the application but believes that an interview would be helpful to resolve any issues, he is respectfully requested to call Craig Summerfield at (312) 321-4726.

Respectfully submitted,



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